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Recreation Project Plan

for

Huckleberry Campground

Department of the Interior

Bureau of Land Management

Recommended by: _____ 1-6-89
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I. Introduction

A. Summary

The project involves further development, modifications or addition of facilities to an existing public campground along the St. Joe River. Facilities to be added to the campground include a drinking water well and developed water system, trailer dump station and more camp units. Camp units will be further developed with electric and water hookups and graywater disposal areas. Some camp units will be modified to accommodate groups. Also, old existing toilet structures will be replaced. New facility designs will meet handicapped accessibility standards (see Appendix A). Additional vegetation will be established on the site and roads will be surfaced.

B. Location and Setting

Huckleberry Campground is located on 17 acres of BLM land adjacent to the St. Joe River in Shoshone County, Idaho. The site is a river bar situated immediately north of the St. Joe River Road (FH Route 50) between the road and the river, 32 miles upstream from St. Maries, Idaho. In 1981 the highway was reconstructed in the vicinity of the site. The site was filled and leveled with 26,000 cubic yards of waste rock which was excess to this construction project. This was done at the request of the BLM. It created additional useable area on-site and raised the site to reduce flooding potential.

Spokane, Washington, 112 road miles to the northwest, is the nearest major population center. Spokane City and County have a combined population of 320,000[1/]. Four Idaho counties, Kootenai, Benewah, Shoshone and Latah comprise the local area served by the campground. The combined population of these counties is 116,037.[2/]

Visitors from out of state account for more than 25% of the use at the site.

Figures 1 and 2 are a general location map and vicinity map respectively.

C. Project Objectives, Justification and Relationship to Previous Planning

Huckleberry Campground is a managerially significant site located in an extensive recreation management area (RMA). Objectives are prescribed in the Emerald Empire Management Framework Plan. The

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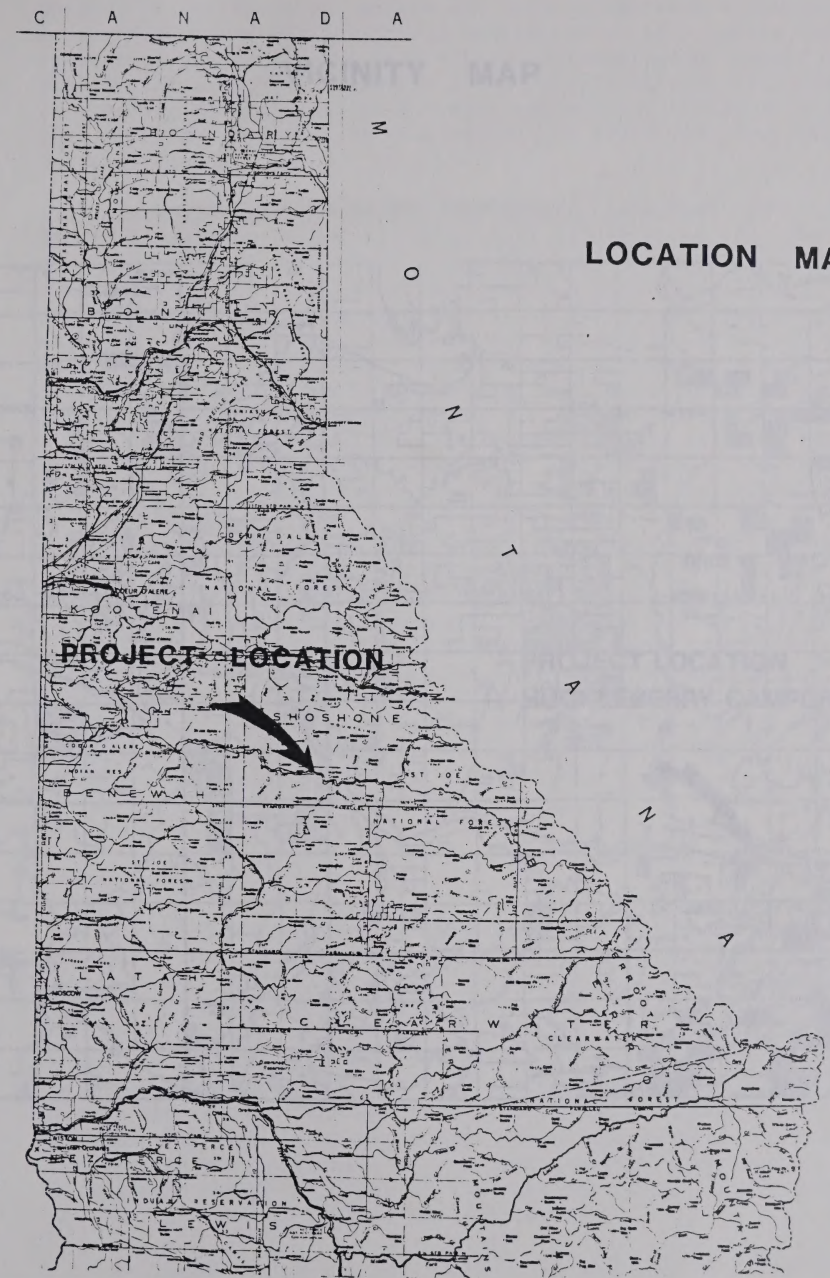
1/ Statistical Abstract of the United States - 1980. U.S. Dept. of Commerce, Bureau of Census, p. 951.

2/ Idaho Outdoor Recreation Plan, 1983, SCORP. Idaho Dept. of Parks and Recreation, Boise, Idaho, 1984, p. 9.

Figure 1



LOCATION MAP

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HUCKLEBERRY CAMPGROUND

Emerald Empire Resource Area, Coeur d' Alene, Idaho

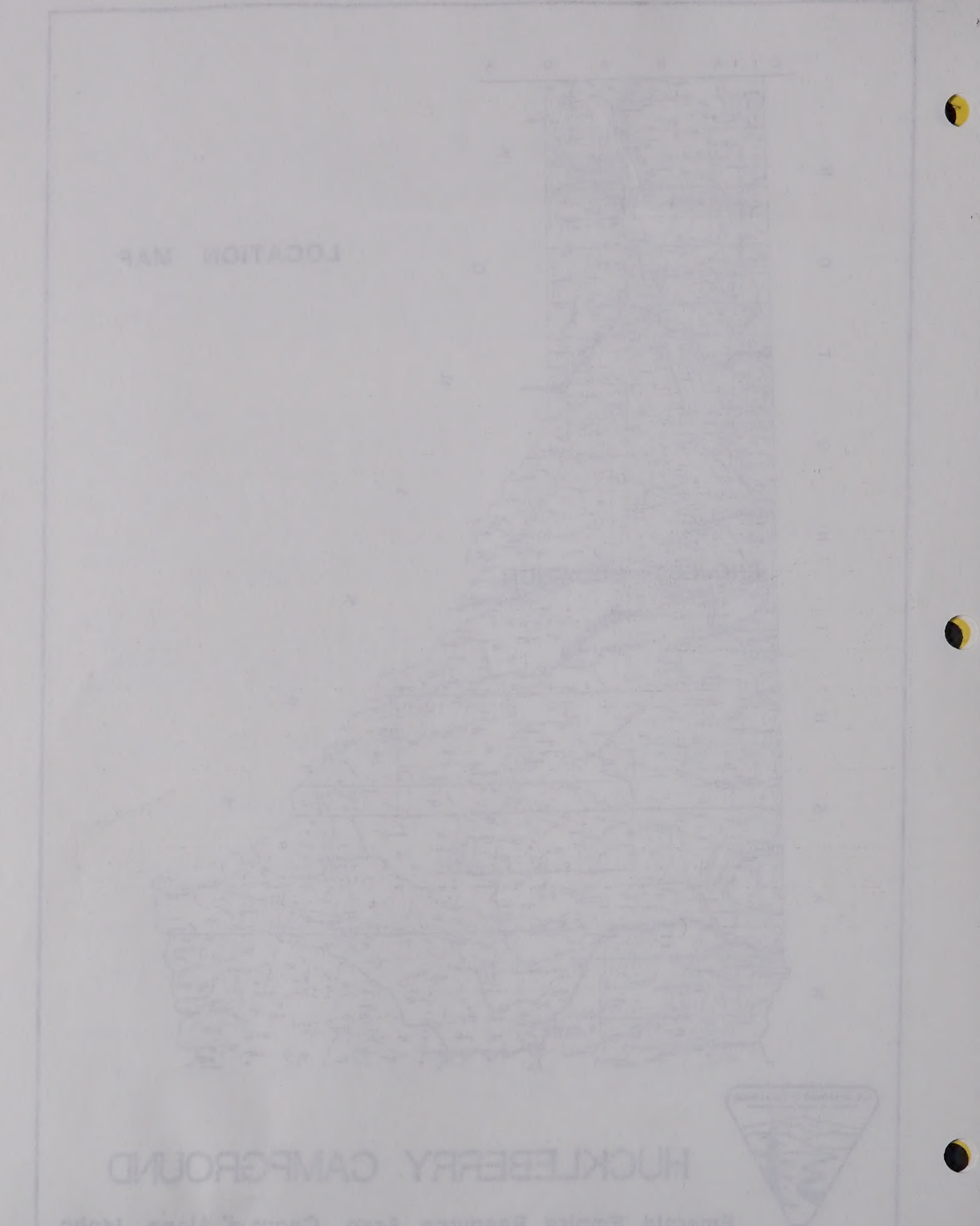
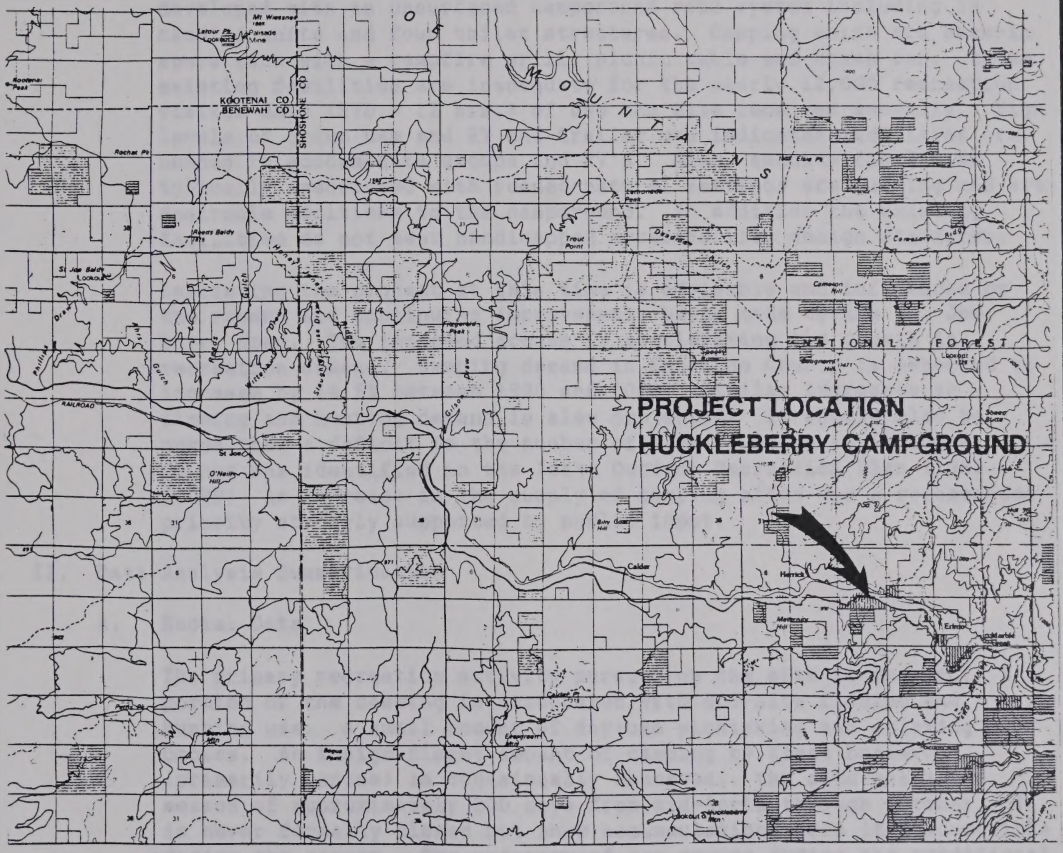


Figure 2

VICINITY MAP



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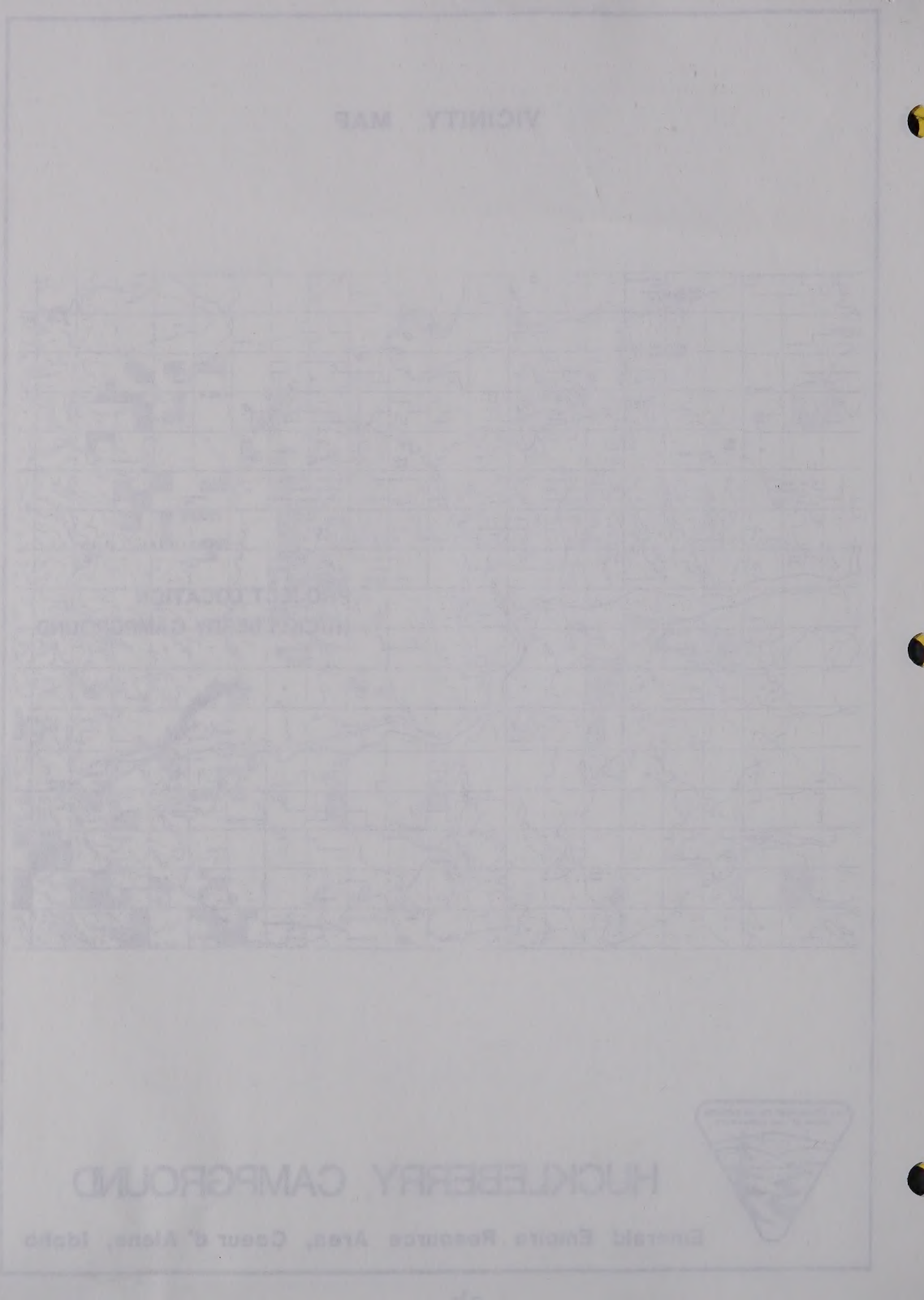
HUCKLEBERRY CAMPGROUND

Emerald Empire Resource Area, Coeur d' Alene, Idaho



general objective is to upgrade and provide recreation facilities consistent with a roaded-natural recreation setting, projected recreation demand and the site's physical development capability. More specifically the objective is to provide camping facilities to accommodate general leisure campers, hunters and fishermen. It is also a Bureau objective to make recreation facilities accessible to the handicapped.

This 17 acre campground is the only public campground along the St. Joe River between Calder and Avery. It is currently only partially developed with an unsurfaced campground road system including 18 camping units and four toilet structures. Camping units are back-in spurs each with a campfire grill, picnic table and trash can. these existing facilities are inadequate for the nearly 12,000 recreation visitor days (RVD = 12 hrs.) of use the site receives annually. High levels of group use and RV and trailer use indicates facilities are needed to accommodate groups and RV's. Also, amenity facilities typically associated with roaded-natural settings are lacking and are desirable additions to the campground. In addition the existing facilities do not meet handicapped accessibility design standards.

Initiating the project at this time is advisable and influenced by the recent and continuing improvements being made to the St. Joe River Road. The improved access is accelerating the growth in recreation demand. Camping demand in Shoshone County is expected to increase by 14.5% between 1990 and 2000. Similar increases in fishing and hunting demand is also projected. It should also be noted that a deficit in the number of camping units in Shoshone County was identified in the Idaho Outdoor Recreation Plan (1983 SCORP) An increase in the supply of camping sites was a recommended priority strongly supported by public input.

II. Data Analysis Summarization

A. Social Data

The primary recreation activity pursued on the site is camping. A portion of the camping is associated with off-site fishing and hunting use. A small amount of day-use picnicking and swimming also occurs. An insignificant amount of camping by float boaters (primarily canoes) is occasionally observed. the site has a use season of approximately 200 days from mid-April through October. It is never formally closed but snow accummulations make it inaccessible during the winter. The majority of use occurs during the traditional Memorial Day thru Labor Day summer recreation season. However, significant use, primarily by big game hunters, continues into the fall season until the close of the hunting season. Other recreation use characteristics include the following:

1. Annual visitor use = 3,000 visits and 12,000 recreation visitor days

2. Overnight camping use = 84% of visits and 99% of RVD'S

3. 27% of visitors are from out-of-state.

4. 14% of visitors camp in tents

5. 86% of visitors use vehicle campers, trailers or motorhomes

6. 67% of visitors use self-contained trailers and RV's

7. 25% of the groups and 55% of the total visits are by large or multiple family groups

8. Single party groups average 2.9 people and range from one to seven.

9. Double party groups average 5.9 people and range from 4 to 10

10. Multiple party groups average 17.5 people and range from 6 to 44+

11. Average group size = 4.8

12. Average group size trailers and RV s = 5.1

13. Average group size tents = 3.7

14. Average length of stay = 54.4 hours

Because of the types of use being managed for and occurring on the site the entire area needs to be developed for camping. Group sites are needed. Drinking water, electricity, a trailer dump area and toilets are desirable amenities.

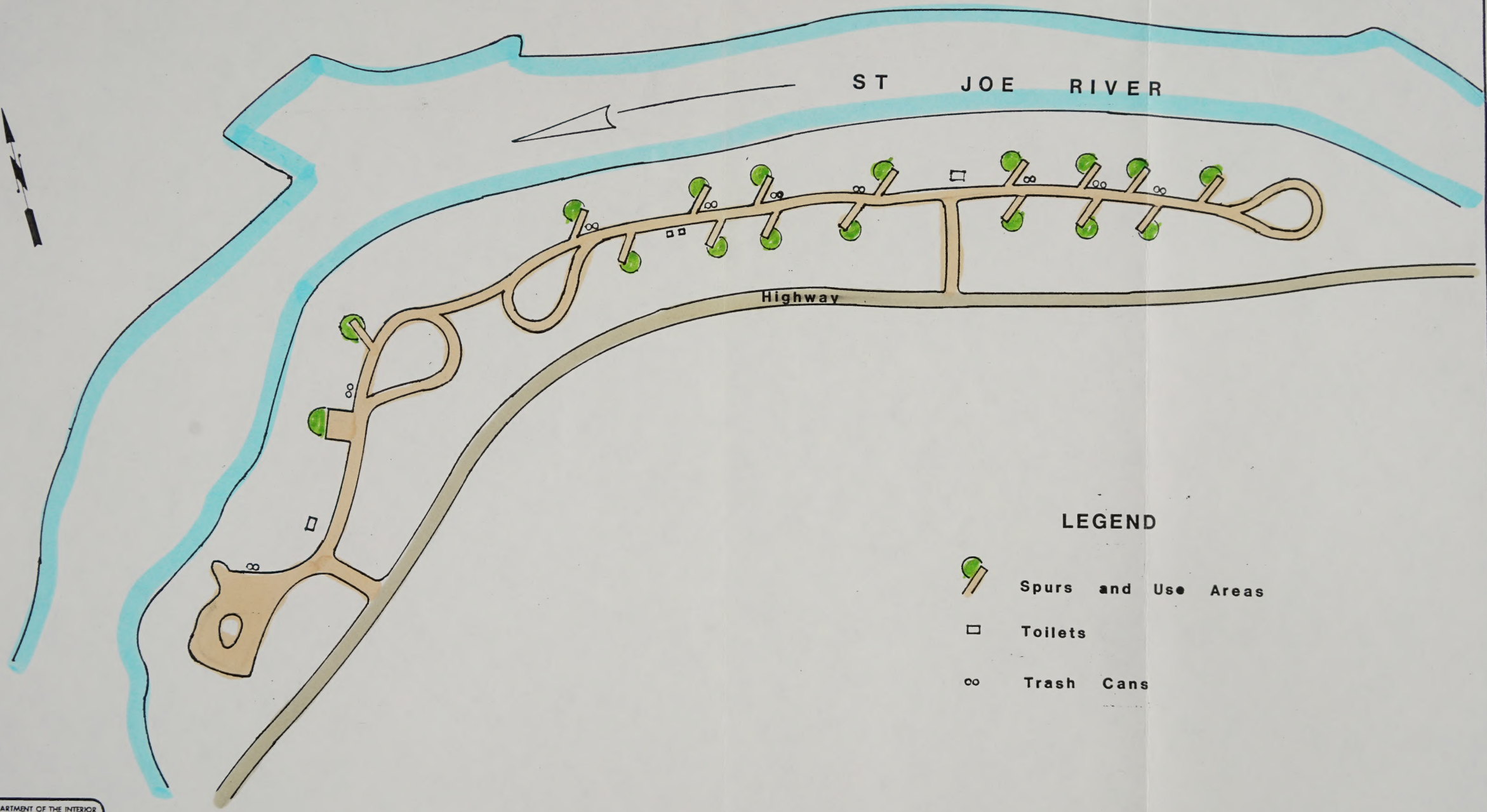
B. Physical Data

Figure 3 is a site map depicting pertinent physical features primarily in the form of existing facilities. The site is a 17 acre level river bar adjacent to the St. Joe River. Rock fill material has been placed over the site to fill in depressions and raise the site higher above the river to reduce flooding. The only significant vegetation on the site is a stand of mature and over mature cottonwood trees concentrated mostly along the edge of the site adjacent to the river. Trees that had existed on site further from the river were thinned and a majority of the remaining trees died subsequent to the placement of rock fill. To date, several hundred hazard trees have been removed. Some of the cottonwood stumps are sprouting from the base. Approximately one thousand tree seedlings of ponderosa pine, western white pine, larch, western red cedar, Douglas fir, and Engleman spruce have been planted over the last several years with very little survival success. A healthy ground cover of grasses and weeds cover the site.

The existing site layout, road and camp spaces were constructed in 1981 when the rock fill was placed in conjunction with the highway improvement project. The eastern two thirds of the site was laid out as a campground and the remainder as a day use area. Each section

Figure 3

PHYSICAL FEATURES



LEGEND

- Spurs and Use Areas
- Toilets
- ∞ Trash Cans

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HUCKLEBERRY CAMPGROUND

Emerald Empire Resource Area, Coeur d' Alene, Idaho

had a separate entrance off the highway and turnaround loops at the ends of the interior road systems. It became apparent that the entire area was used and needed for camping. Subsequently, the day use and campground turnaround loops were connected straight through and the day use area converted to campsites. All the toilet structures on the site are old. The western most building was built on site approximately 15 years ago. The eastern most building is 25 years old and was moved from the BLM's Pack River Viewpoint site and installed at Huckleberry in 1987. The two buildings in the center of the site were also installed in 1987. They were surplus Forest Service buildings approximately 25 years old moved from two separate campgrounds.

C. Functional Relationships

Ideal relative locations of use areas and facilities in relation to each other, based on user group relationships and patterns of use are shown in figure 4. Access is retained as it currently exists. Group camping areas are clustered separate from single unit camping areas. The trailer dump area is adjacent to the group camps nearest to where the highest concentration of users will be. It is also accessible to the individual camps and adjacent to an access road so it will be convenient to use whether entering or leaving the site. The water well is towards the upstream end of the site far from the trailer dump to minimize danger of pollution to the well. Toilets and water are available near all the campsites.

III. Plan Concept and Design Parameters

A. Assumptions, Site Limitations and Problems

1. Existing access off the St. Joe River Road will be retained as it presently exists.

2. The basic site layout (roads and spurs) will be retained as much as possible because this is assumed to be the least costly approach to site development.

3. Retention of as much of the existing tree cover as possible is desirable in the short term. This will be taken into account when determining the placement of facilities.

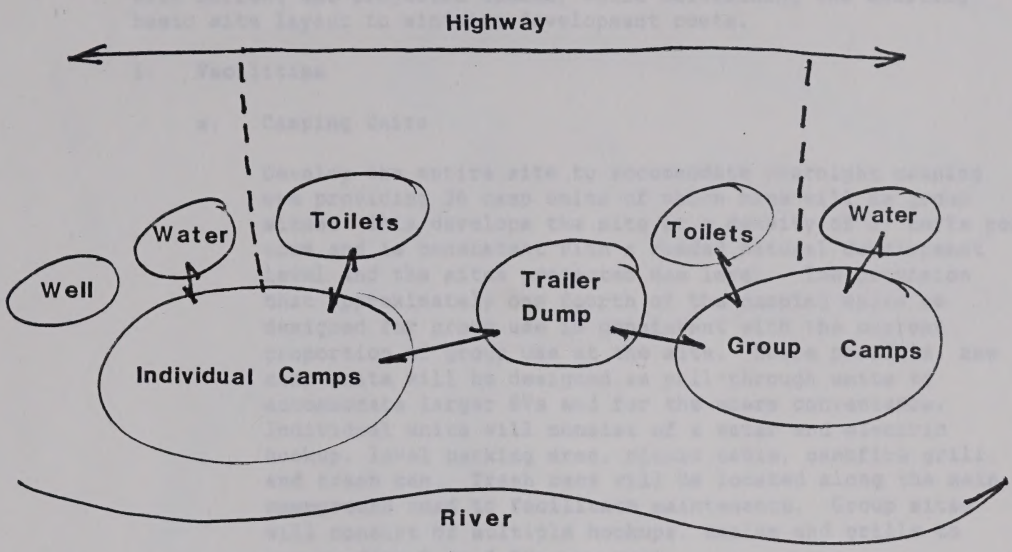
4. Cottonwood trees are not desirable in a campground setting. Over time these trees will have to be removed.

5. On-site sewage disposal via septic tank and drainfield may not be possible because the site is a river bar adjacent to the St. Joe River. Alternative development proposals are needed as a contingency in case a permit allowing a drain field can not be obtained.

6. Electric service to the site currently does not exist. The Washington Water Power Company line is on the opposite side of the river. An overhead line will have to be run across the river. It is assumed permission can be obtained to do this.

Figure 4

FUNTIONAL RELATIONSHIPS



+ Existing Access Retained
+ Group Camps Clustered Seperate From Individual Camps
+ Trailer Dump Adjacent To Group Camps
+ Well Upstream End Of Site
+ Toilets & Water Available To All Sites

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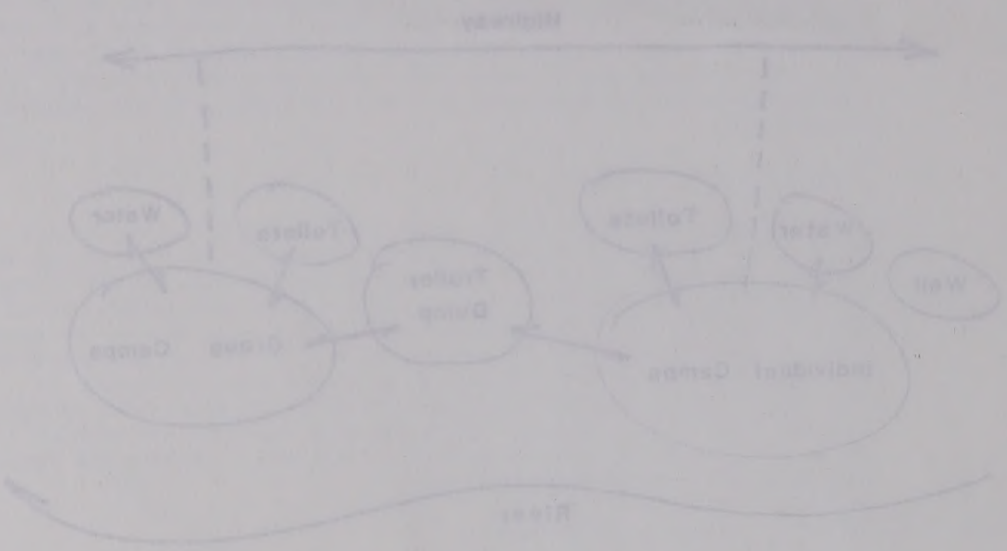
HUCKLEBERRY CAMPGROUND

Emerald Empire Resource Area, Coeur d' Alene, Idaho


Water
Toilets
Trailer
Dump
Drive
Toilets
Water
Well
Drive
Camps
Individual Camps

B. Plan

Figure 5, plan concept and Figure 6, water and sewer system, show the locations of new facilities to be constructed, existing facilities to be modified and existing facilities to be retained. Essentially, the plan is to upgrade facilities to provide an RV campground consistent with current and projected demand, while maintaining the existing basic site layout to minimize development costs.

1. Facilities

a. Camping Units

Develop the entire site to accommodate overnight camping use providing 36 camp units of which nine will be group sites. This develops the site at a density of 2+ units per acre and is consistent with a roaded natural development level and the sites projected use level. The provision that approximately one fourth of the camping units be designed for group use is consistent with the current proportion of group use at the site. Where possible, new camp units will be designed as pull-through units to accommodate larger RVs and for the users convenience. Individual units will consist of a water and electric hookup, level parking area, picnic table, campfire grill, and trash can. Trash cans will be located along the main campground road to facilitate maintenance. Group sites will consist of multiple hookups, tables and grills to accommodate 3 to 6 RVs per unit.

b. Toilets

Provide six vault toilet structures, including a pair in the group camping area and four others spaced through the campground. This will provide a toilet within 250 to 300 feet of each camp unit, will obviate the need for providing sewer hook-ups at individual camp units and are necessary to accommodate campers not using self contained RVs.

c. Trailer Dump

Provide a centralized trailer dump facility. A shortage of dump stations exist in the area and if individual sewer hookups are not to be provided this alternative will accommodate the large number of RV campers utilizing the site.

d. Gray Water Disposal

Gray water disposal areas will be provided for each six to eight camping units where water waste can be hand carried and disposed of. Gray water disposal units will consist of a small septic tank and drain field.

Figure 5

PLAN CONCEPT

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HUCKLEBERRY CAMPGROUND

Emerald Empire Resource Area, Coeur d' Alene, Idaho

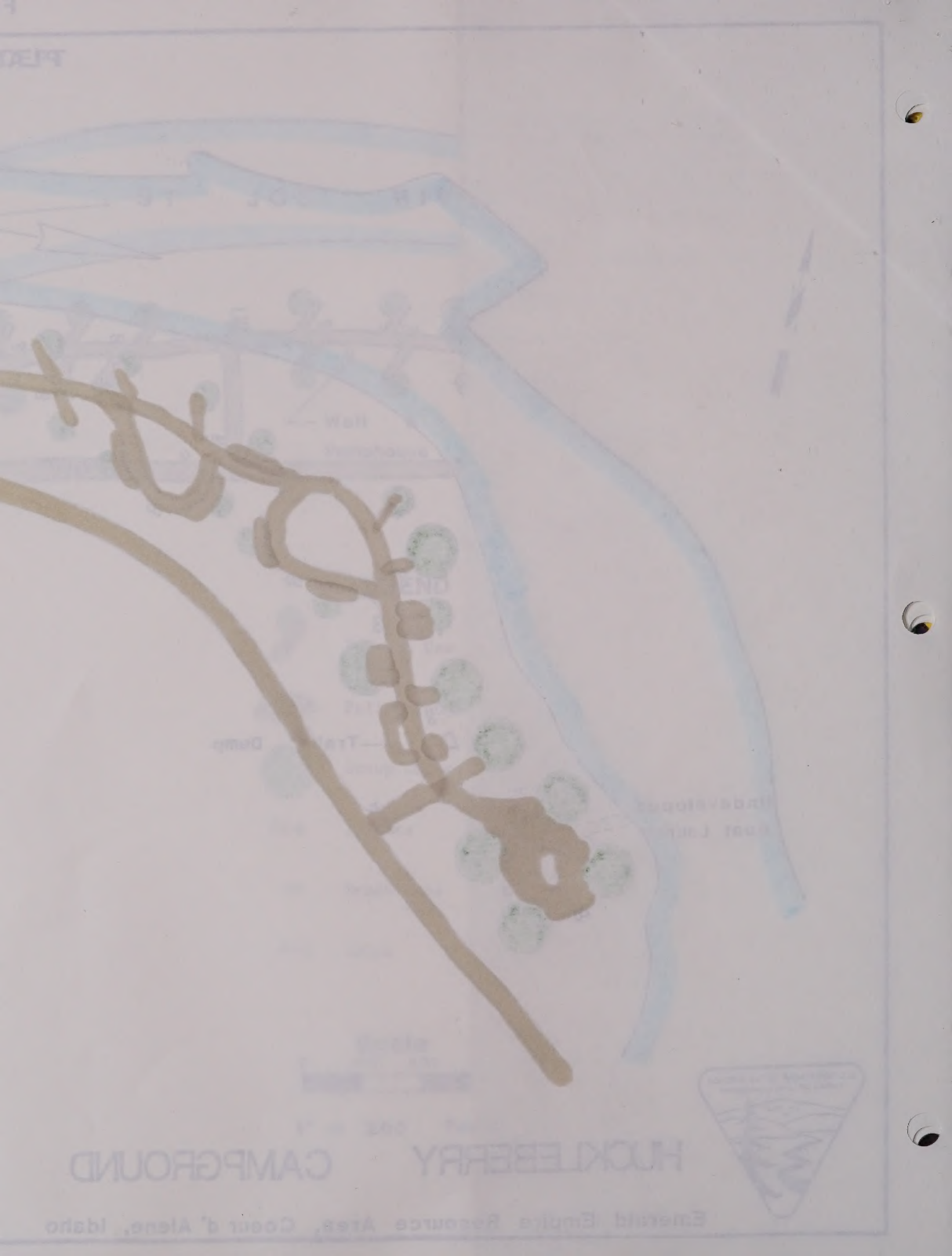

Figure 6

SEWER AND WATER SYSTEM

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HUCKLEBERRY CAMPGROUND

Emerald Empire Resource Area, Coeur d' Alene, Idaho

e. Water

A water well as shown will be drilled and a pressure distribution system will be designed to provide water to the camp units, trailer dump, and other outlets for convenience and maintenance.

f. Roads and Spurs

The existing road system and spurs will be retained and used. New camp units will be added as shown. The road system will initially be graveled and at a later date will be asphalt surfaced.

g. Day Use Facilities

Specific facilities for day uses will not be provided because 99% of the sites current use (based on the number of RVs) is by campers. However, day uses will be accommodated by not excluding such use from the campground. Camp units, open space and other facilities will be available for picnic and other day use activities. Space between the western most two group campsites as shown will be provided to allow for an undeveloped boat launching access site.

h. Showers

Shower facilities are not currently planned. An option exists to provide them at a later date. However, the other facilities are a higher priority.

i. Signing

Figure 7 is a site sign plan.

2. Vegetation Management

a. Existing Cottonwood Trees

The existing trees on the site are primarily cottonwoods. Due to relatively high failure rates they are not desirable in a campground setting. Over-mature cottonwoods will be removed over time as inspections determine they are hazards.

b. Reforestation

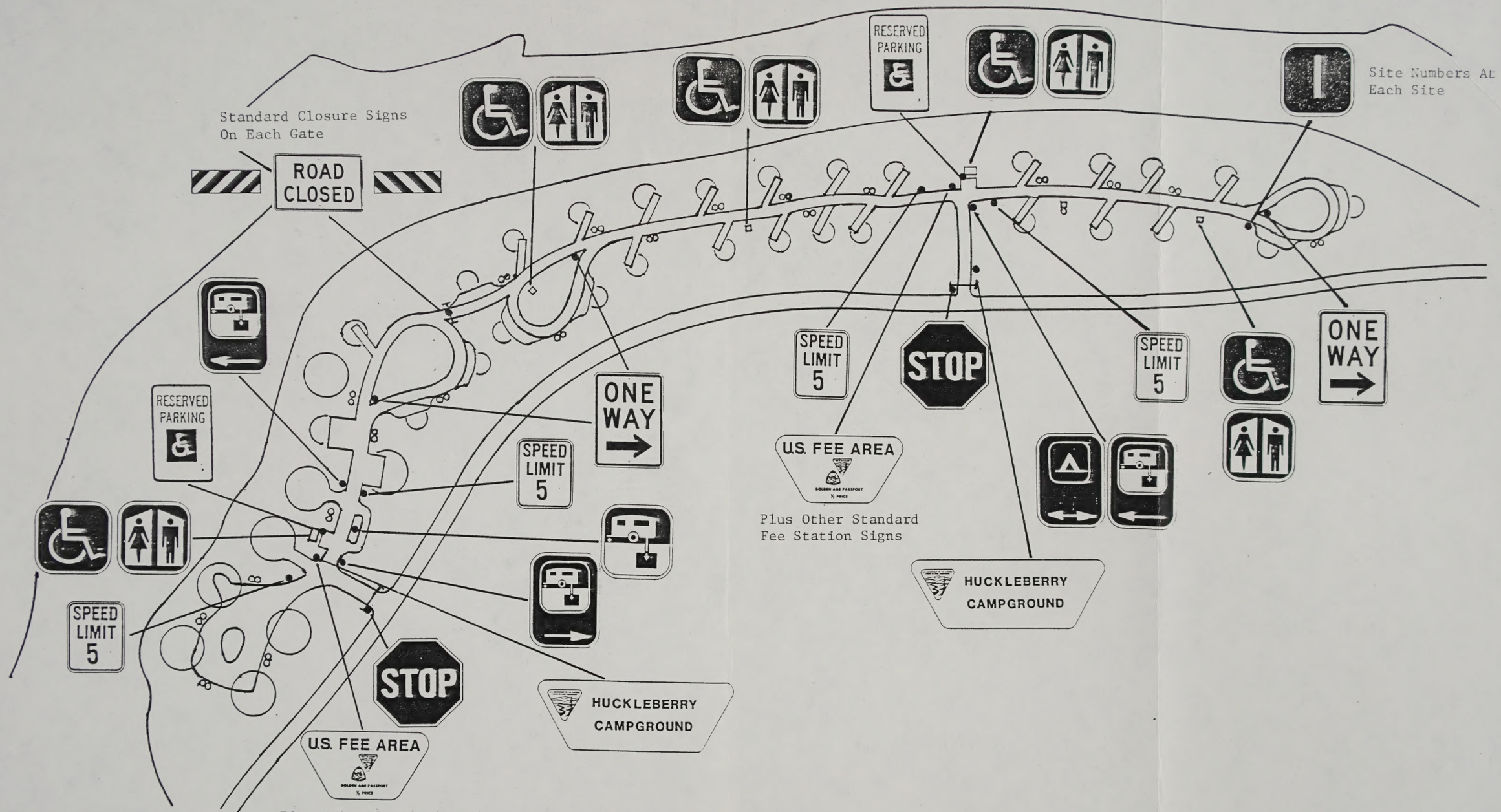
Native conifer and deciduous trees and shrubs will be planted to replace the removed cottonwoods. A variety of species will be used, approximately two thirds conifers and one third deciduous.

c. Seeding

Areas disturbed from construction will be seeded in the first favorable season after construction and fertilized the following spring.

Figure 7

SIGN PLAN



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HUCKLEBERRY CAMPGROUND

Emerald Empire Resource Area, Coeur d' Alene, Idaho

STOP
ONE WAY
ROAD CLOSED
STOP
US FEE AREA

3. Fees and Administration

With the development as proposed the campground will meet federal fee criteria. At such time as a water system is developed to distribute water, camping use fees should be charged. Self-issue permit and fee collection stations will be used. Exact fees will be set based on a survey of fees charged at other comparable sites in the area. Following is an estimated fee structure:

$5.00	per unit per night
$7.00	per unit per night with electricity
$2.00	per each additional vehicle not in tow
$1.00	trailer dumping fee for those not staying at the campground and paying the camping fee

C. Design Parameters

1. Camping Units

Typical designs for back in spurs, pull-through units and group units are shown in Appendix B. Water and electric hookups are to be constructed according to Idaho plumbing and electric codes. Picnic tables shall be prefabricated, manufactured units such as model UT/G-8SP constructed by R.J. Thomas Manufacturing Co. They will be anchored to the ground by a concrete dead-man, chain and lock to discourage theft. Grills are to be ground mounted steel rings with grates capable of being tilted back such as Model FA-30 as constructed by R.J. Thomas Manufacturing. Trash cans are to be galvanized, 32 gallons, with lids as available through GSA. They will be mounted on stands adjacent to the main campground road to facilitate maintenance and will be secured with a chain and lock to discourage theft. At least three of the camp units shall be made handicapped accessible by providing a surfaced use area surrounding the table and grill. Table planks will be extended beyond the end frames and stand mounted grills will be provided. Reference Appendix A.

2. Toilets

Generally accepted handicapped accessibility design standards will be followed. Refer to Appendix A. Toilets will be vaulted to contain wastes. The vault shall be adequately vented in accordance with current technology to avoid build-up of vault odors inside the toilet structure. A pre-manufactured building such as produced by J. & J. Contractors of Blackfoot, Idaho, is desirable and meets these standards. Toilets are to be located per figure 5 so that no camp unit is more than 300 feet from a toilet.

3. Trailer Dump

The trailer dump shall be accessible by traffic both entering and leaving the campground. It will be constructed per Idaho plumbing codes and will consist of a water tower and waste drain with sanitary cap. The sewer line will drain to a 1000 gallon septic tank and drain field. The drain field will be a minimum

of 300 feet from the St. Joe River and 25 feet from any water service line in accordance with health regulations. A potable water service outlet with hose bib will be provided a minimum of 25 feet from the dump station. Gray water disposal lines in the vicinity of the dump station may also be drained to the septic tank. If approval for a drain field cannot be obtained, two 1000 gallon septic tanks will be provided. Wastes will then be pumped and removed from the site for disposal.

4. Gray Water Disposal

Seven gray water disposal sites will be provided and constructed per Idaho plumbing codes. They will drain to a 300 gallon septic tank and drainfield with a minimum drainage area of 120 square feet in accordance with health regulations. The drainfields will not be longer than 100 feet nor wider than 3 feet and shall be a minimum of 25 feet from any water service lines.

5. Water

The existing water well will be developed with a submersible pump and pressure water system. An iodinator and 5 micron filters will be included with the filters on line ahead of the pressure tanks and the iodinator on line after the pressure tanks. The pressure tanks, filters, electric service panel, etc. will be enclosed in a wood frame constructed pump house on a concrete or masonry foundation. The building will be insulated but a heating source is not required since it is anticipated that the water system will be shut down and drained each winter. The well will be capped and located outside the pumphouse building to facilitate pump maintenance. Service lines will be initially sized to adequately supply the 36 camp units, trailer dump and possible future shower buildings even though this full development level will not be immediately attained. Stubs off from "Tees" will also be initially installed to allow for future phases of the sites development. Outlets with drinking faucets and hose bibs will be provided adjacent to the main campground road off the main water line running to the trailer dump. These outlets will initially service the campground until a later development phase when hookups are provided at the camp units. They are also needed to facilitate maintenance and grounds care activities. These outlets will be located a minimum of every 300 feet along the water line. All water service lines will be located a minimum of 25 feet from any sewer line, drainfield or toilet vault. Water lines will be buried a minimum of 48 inches or according to code to protect them from freezing. Adequate drain valves for outlets are also needed. Electric lines will be buried with the water lines to avoid having to dig two trenches and because electric service outlets terminate at the same locations as water outlets.

6. Roads and Spurs

The design team will be guided by BLM road design standards as shown in BLM Manual 9113. Entrance road shall be at right angles to the highway and have a minimum 24 foot width. The

main campground road shall have a minimum width of 18 feet. Existing turn around loops each with a minimum 50' turning radius shall be retained. Campground spurs will have a minimum width of 14 feet. Roads, except for the existing paved access entrances, will be initially gravel surfaced. They will be asphalt surfaced at a later development phase. Surfaced paths to the toilets for handicapped accessibility will also be provided at this time. Parking as shown on figure 5 will be provided at the two toilets nearest the entrances to accommodate day users. Each parking area shall be adequate to accommodate a minimum of four vehicles. Minimum parking space dimensions shall be 20 feet by 10 feet. One 12 foot wide handicapped parking space will be provided at each area. Gates as shown shall be a standard steel pipe design. They are necessary to close portions of the campground during the off season.

7. Signing

Signs will conform to standards prescribed in BLM Manual 9130. Standard Federal recreation symbols shall be used and traffic control signs shall comply with the Manual of Uniform Traffic Control Devices.

IV. Project Development Overview

A. Required Administrative Actions

Implementation of the project plan will be accomplished in phases. For each phase there is a set of individual administrative actions preceeding construction of a particular phase. However, these actions follow a general four step sequence common for each phase as follows:

1. Survey/design
2. Obtain funding
3. Obtain permits
4. Construction
   a. Develop contract
   b. Advertise and award
   c. Administer

Following project plan approval, survey and design work to produce constructing drawings and specifications is required. This will be done in general for the entire project and specifically for the first three construction phases. Assistance from BLM Idaho State Office (941) will need to be requested. Design work for successive phases will continue throughout the life of the project and will usually occur in the year preceeding the year in which construction is expected.

The second step for each phase is to obtain funding. Administrative actions here follow the normal bureau budget process. This step actually starts ahead of the survey and design step but culminates after. In addition, grant funding to supplement Bureau appropriations will be sought for each phase. Grant applications are

generally made after survey and design work is completed and after Bureau funding levels are established in order to know at what level the Bureaus matching share commitment can be.

Third, it will be necessary for the BLM to obtain appropriate permits, easements and authorizations. Specifics here vary depending on the particular work to occur in any one construction phase. To run power to the site, easements are necessary. Washington Water Power Co. will provide electrical service and obtain the necessary easements. BLM will assist with the required right-of-way across BLM lands. Aspects of the project involving sewer and water systems and toilets require approvals from the Panhandle Health District.

During the fourth step, construction permits and inspections are required for electrical and plumbing work. Much of the actual construction work will be accomplished via contract. Administrative actions following normal Bureau procedures to develop, advertise, award and administer contracts will be taken on each individual contract.

B. Development Schedule

The magnitude of this project coupled with the anticipated recreation cost targets dictates that implementation be phased over eleven years. Work for each phase is described below.

1. Phase One (1988)

The first phase of the project is under way. Funding was made available through a state RV grant to drill a drinking water well and install three vault toilets.

2. Phase Two (1989)

Phase two includes providing electrical service to the site including easement acquisition. The well will be developed by installing a submersible pump and pressure tank housed in a secure pumphouse building. The water system outlet will be terminated at an exterior hydrant adjacent to the pumphouse but, will be installed with a "Tee" to allow for its continuation during phase three. Also, during this phase 150 trees ranging in size from 4 to 10 feet will be planted. In each successive phase, an additional 50 to 100 trees will be planted depending on their availability, the survival rate of preceeding plantings, and the number of over-mature cottonwoods removed each year. Some funding for this phase has been budgeted. Additional funding via an RV grant has been approved.

3. Phase Three (1990)

This third phase involves installing the main water line for the entire length of the campground terminating it at a trailer dump station, septic tank and drain field. Along the water line

outlets will be provided. Upon completion of this phase Huckleberry Campground will be designated a fee site.

4. Phase Four (1991)

With phase four the ten group units will be developed. This will include defining and graveling the sites and installing the tables, grills and trash cans. Essentially, this will convert the area of the site originally designed for day uses to camping uses.

5. Phase Five (1992)

Electric and water hookups will be provided to 25 camp units in the projects fifth phase. At this point the remaining eleven individual camp units will not have been constructed so service to these eleven sites will not be needed at this time.

6. Phase Six (1993)

The remaining three toilets will be installed in this phase.

7. Phase Seven (1994)

In the seventh phase the final eleven individual camp units will be completed. Gravel spurs will be constructed and the tables, grills and trash cans installed.

8. Phase Eight (1995)

The final eleven electric and water hookups will be made during the eighth phase of the project. Also at this points the identified gates will be installed. Installation of the gates is delayed until this point of the project to allow time for the trees planted during previous phases to become established. Until these trees form a vegetative barrier gates will not effectively control traffic.

9. Phases nine thru eleven (1996-98)

These phases involve paving the campground road and spurs. Due to the expense of this action it will be done in three steps. Half the road system will be paved in one year followed by the remainder of the road in the second year. In the third year the camp unit spurs will be surfaced.

V. Preliminary Project Cost Estimates

A. Phase 1

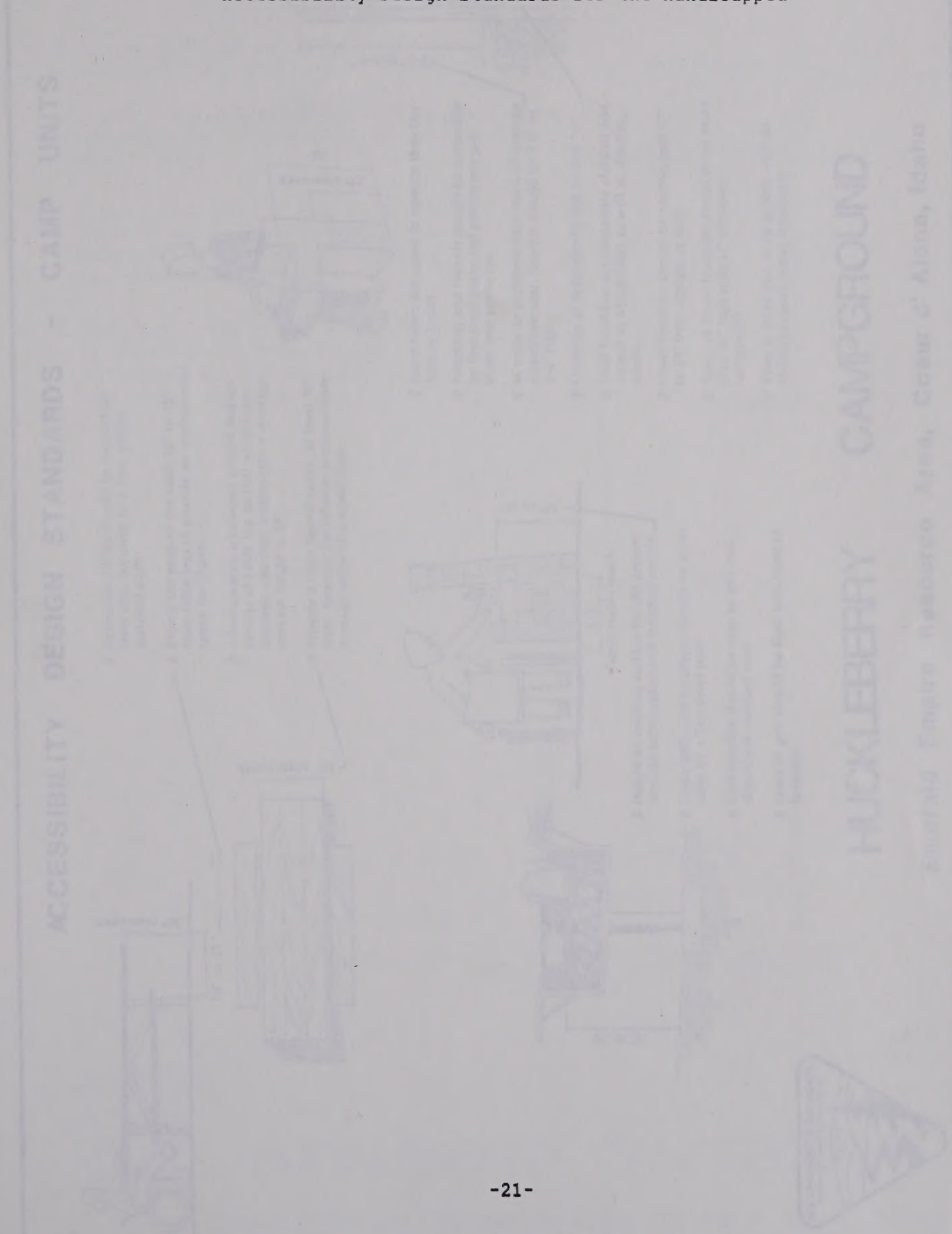
Water Well and Hand Pump (contract)	$ 9,200
Toilets (contract)	25,000
Project Administration	3,000
Phase One Total	$37,200

B.	Phase 2	
	Electric Service & Easements (contract)	$ 4,000
	Pump, Pressure Water System	8,000
	Pumphouse Building - Materials	2,000
	Labor (WM's)	1,000
	Trees	2,500
	Planting Labor (WM's)	1,000
	Project Administration	$ 3,000
		$21,500
C.	Phase 3	
	Water Line & Outlets (contract)	$10,000
	Trailer Dump, Septic, Drainfield (contract)	10,000
	Trees	1,000
	Project Administration (WM's)	3,000
		$24,000
D.	Phase 4	
	Group Sites - Gravel (contract)	$18,000
	Table, Grills, Trash Cans - Materials	9,800
	Labor	2,000
	Trees	1,000
	Project Administration	3,000
		$33,800
E.	Phase 5	
	Hookups at 25 Sites (contract)	$25,000
	Trees	1,000
	Project Administration	3,000
		29,000
F.	Phase 6	
	Toilets (contract)	$25,000
	Remove Old Toilet (WM's)	2,000
	Trees	1,000
	Project Administration	1,000
		$29,000
G.	Phase 7	
	Eleven Individual Sites - Gravel (contract)	$18,000
	Tables, Grills, Trash Cans at 11 sites - Materials	4,000
	Labor	1,000
	Trees	1,000
	Project Administration	3,000
		$27,000
H.	Phase 8	
	Hookups at 11 sites	$12,000
	Gates (contract)	3,000
	Trees	3,000
	Project Administration	3,000
		$21,000

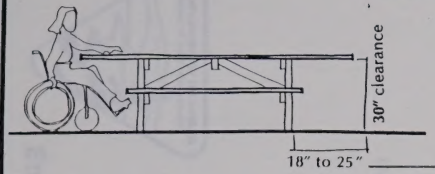
I.	Phase 9	
	Pave 1/2 of Main Road (contract)	$80,000
	Project Administration	3,000
		$83,000
J.	Phase 10	
	Pave 1/2 of Main Road (contract)	$80,000
	Project Administration	3,000
		$83,000
K.	Phase 11	
	Pave Camp Unit Spurs	$80,000
	Project Administration	3,000
		$83,000
	TOTAL PROJECT COST =	$471,500

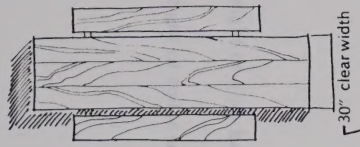
APPENDIX A

Accessibility Design Standards for the Handicapped

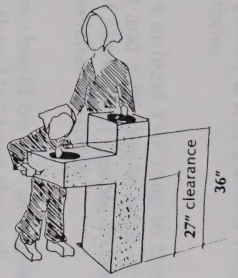


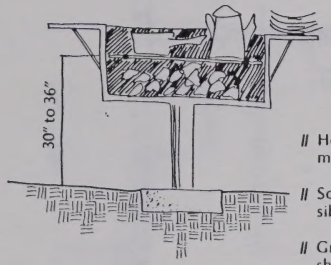
ACCESSIBILITY DESIGN STANDARDS - CAMP UNITS

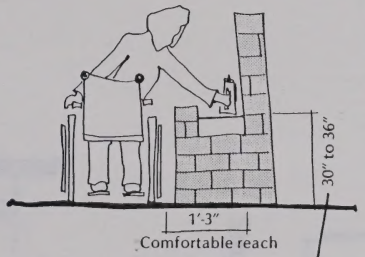




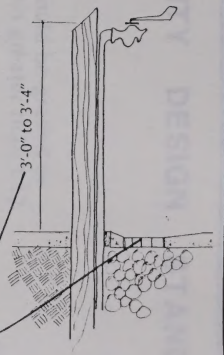
- Accessible tables should be located on level sites adjacent to a firm, stable-surfaced path
- Extend the ends of the table 18" to 25" from table legs to provide an unobstructed space for chairs
- Allow clearance between ground and underside of table top so that wheelchair armrests can slide underneath • Average armrest height is 30"
- Provide a clear lateral space, at least 30" wide, beneath the table to accommodate average width of a wheelchair







- Height of cooking surface should accommodate both seated and standing people
- Some grills and fireplaces should be accessible by a firm level path
- Grill handles should be easy to grip and should not conduct heat
- Front of grill should be flush with front of fireplace



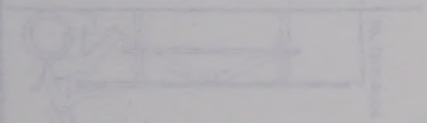
- Hand levers are easier to operate than buttons or knobs
- Fountains and faucets should be accessible by firm level paths and should not protrude into pathways
- In order to accommodate reach of average wheelchair user, faucets should be 3'-0" to 3'-4" high
- Openings in drain should not exceed ½"
- Dual fountains accommodate children and people in wheelchairs as well as standing adults
- Lower fountain should be cantilevered 17" to 19" from upright or wall
- Spout of lower fountain should be no more than 36" high with 27" clearance underneath
- Keep in mind that many people with disabilities require water frequently

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HUCKLEBERRY CAMPGROUND

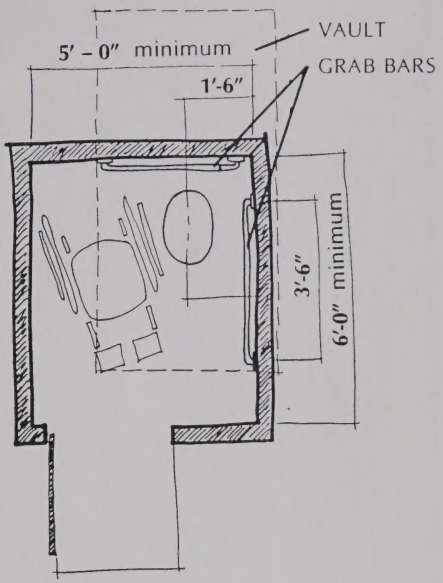
Emerald Empire Resource Area, Coeur d' Alene, Idaho

HUCKLEBERRY CAMPGROUND

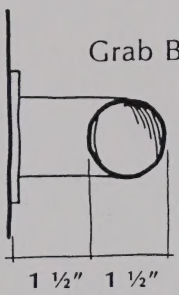


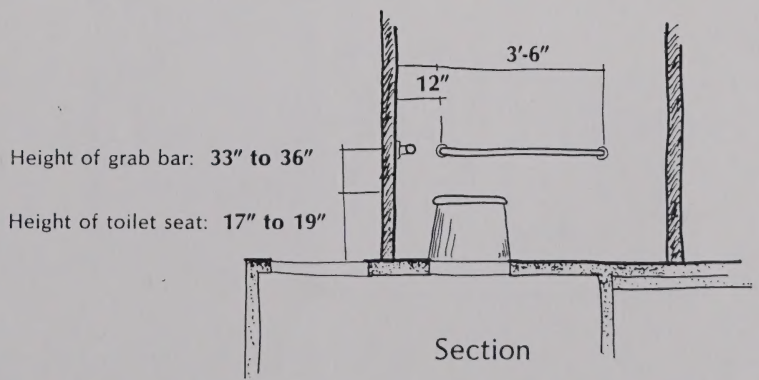
ACCESSIBILITY DESIGN STANDARDS - TOILET

- Approach to toilet should be graded or ramped with a slope no greater than 1:12
- A stall, 5′ x 6′, is accessible to most people and will permit a side transfer from wheelchair to toilet
- Grab bars at least 3′-6″ long to the side of the toilet and 3′-0″ long in back of the toilet will allow most people to transfer from wheelchair to toilet
- Grab bars should be 1½″ in diameter and no more than 1½″ from the wall (otherwise, arms can slip and be trapped between bar and wall)



Single Toilet: Plan





Section

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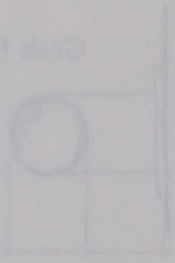
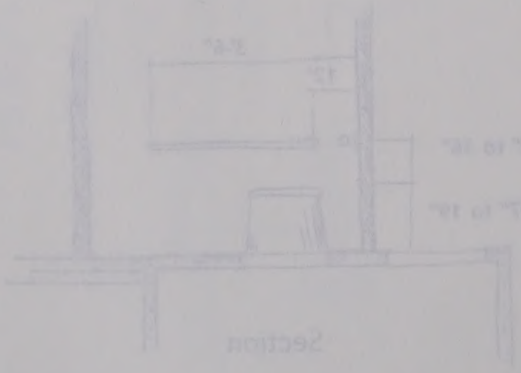
BUREAU OF LAND MANAGEMENT

HUCKLEBERRY CAMPGROUND

Emerald Empire Resource Area, Coeur d' Alene, Idaho



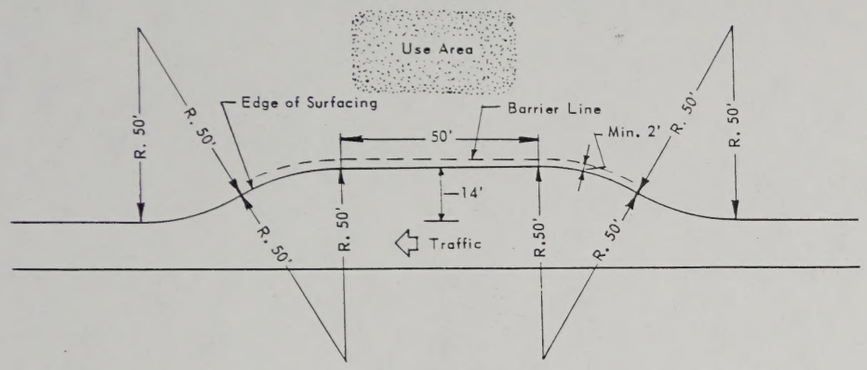


APPENDIX B

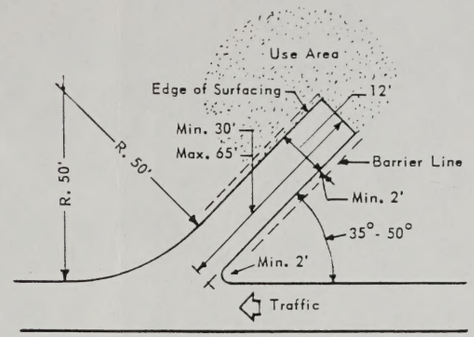
Facility Design Standards

Appendix B Figure 1

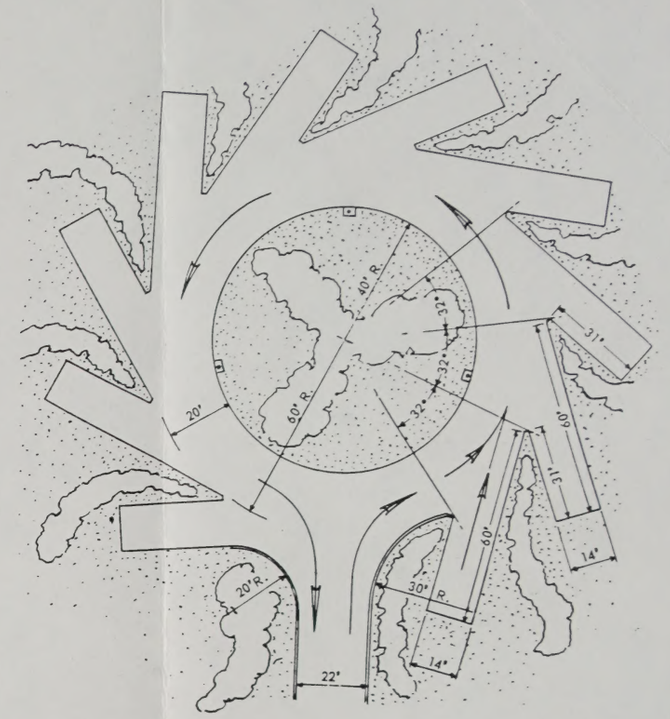
CAMP UNITS



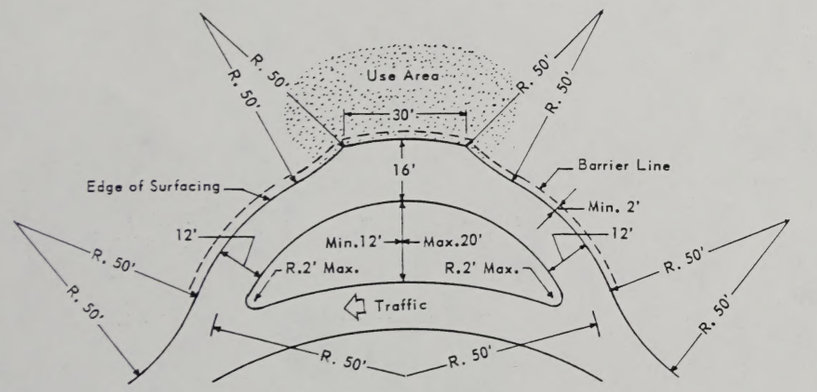
Pull-through Units

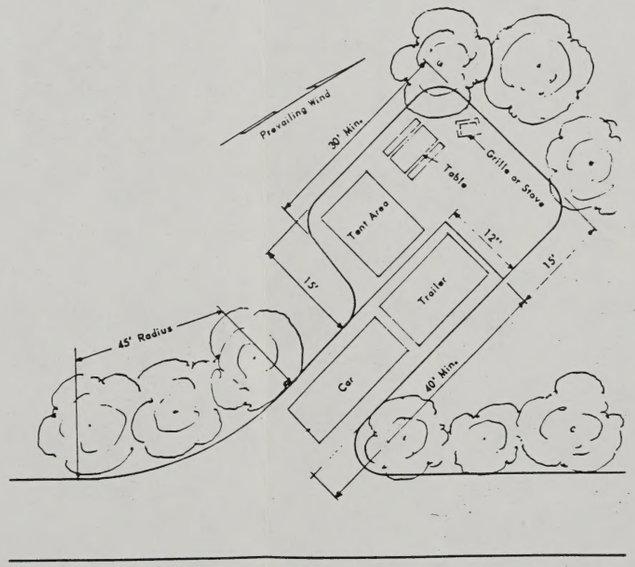


Individual Units

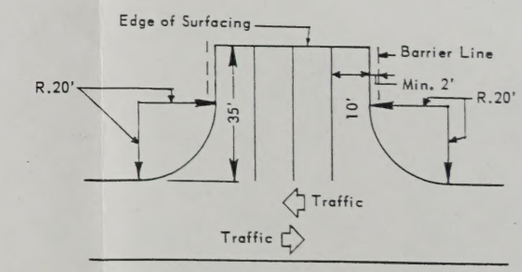


Group Units





Handicapped Accessible Units



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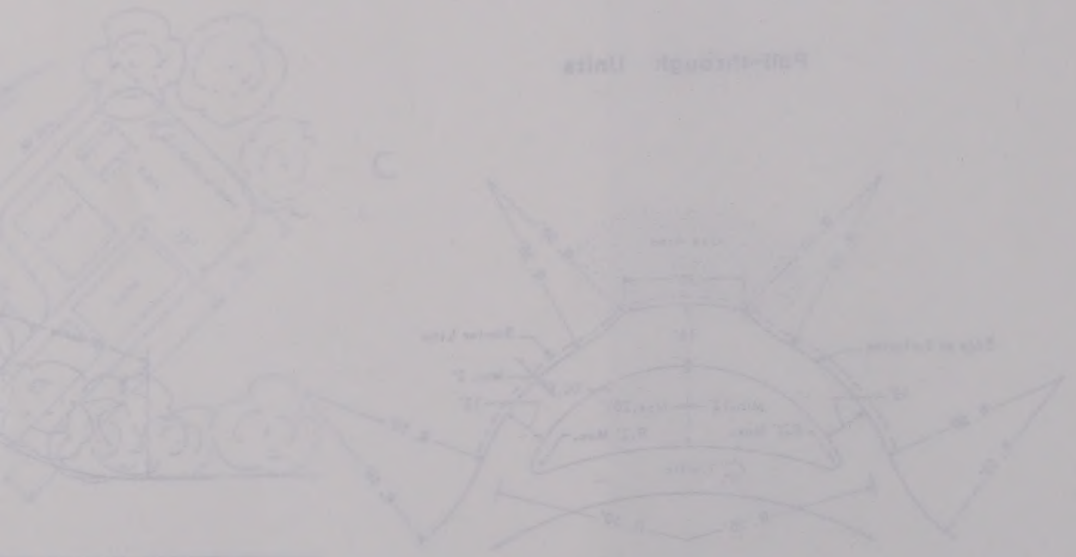
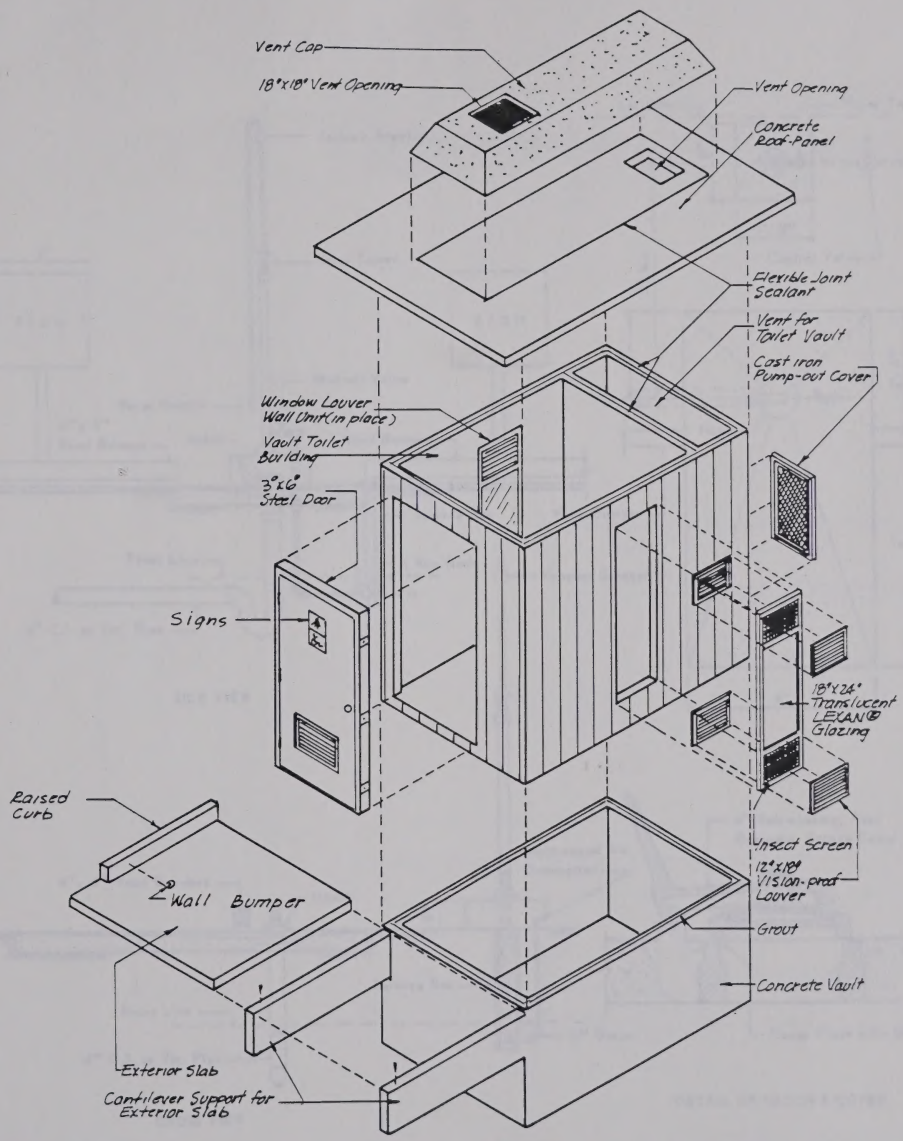
HUCKLEBERRY CAMPGROUND

Emerald Empire Resource Area, Coeur d' Alene, Idaho



HUCKLEBERRY CAMPGROUND

TOILETS



NOTE: Detail No. 03421A, modified without concrete screens.

U.S. DEPARTMENT OF THE INTERIOR
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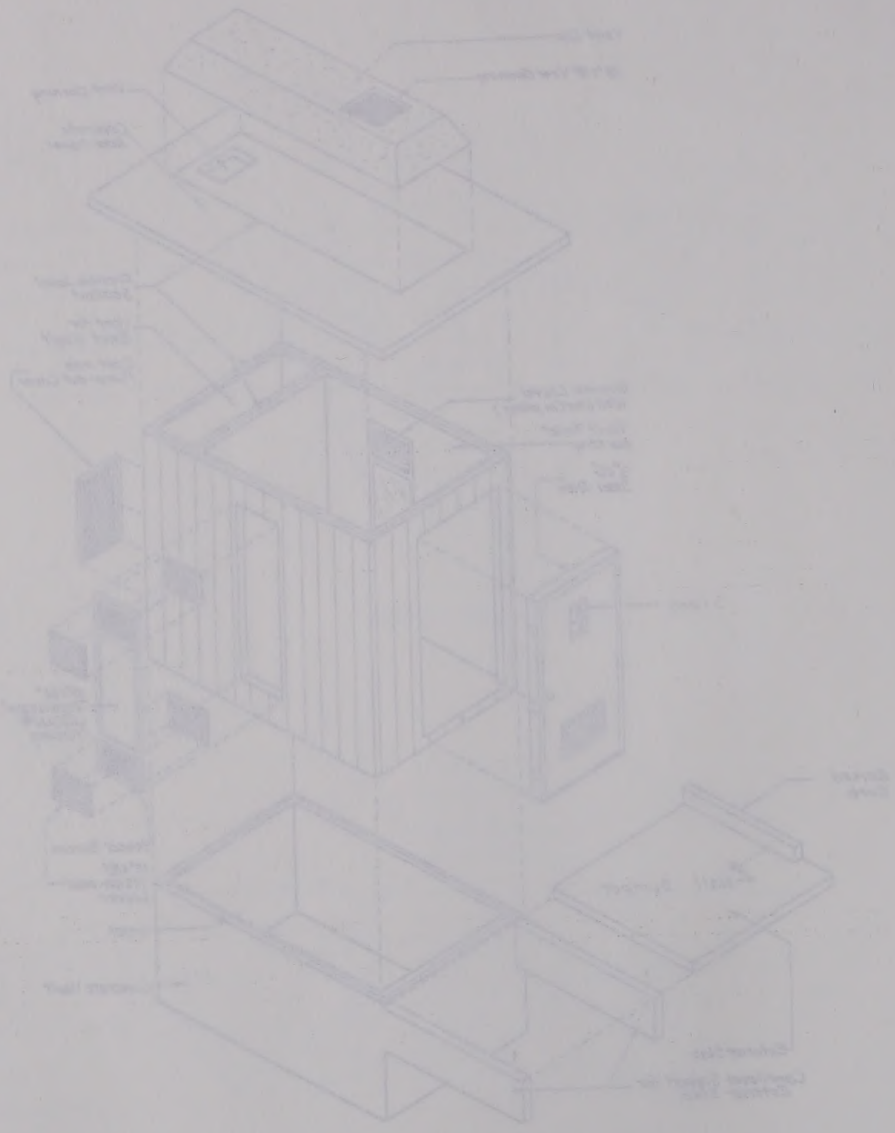
HUCKLEBERRY CAMPGROUND

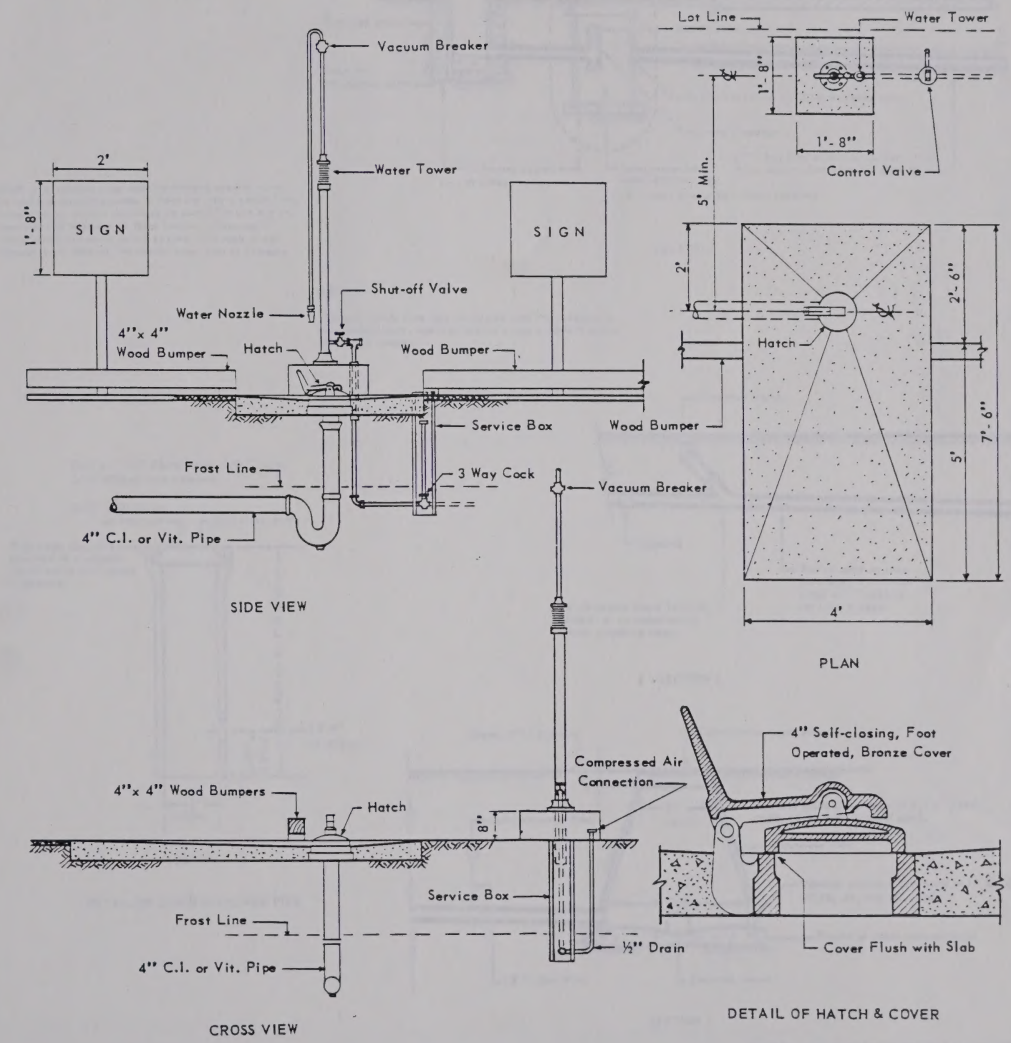
Emerald Empire Resource Area, Coeur d' Alene, Idaho



HUCKLEBERRY CAMPGROUND

Emerald Empire Resource Area, Coeur d' Alene, Idaho

TRAILER DUMP



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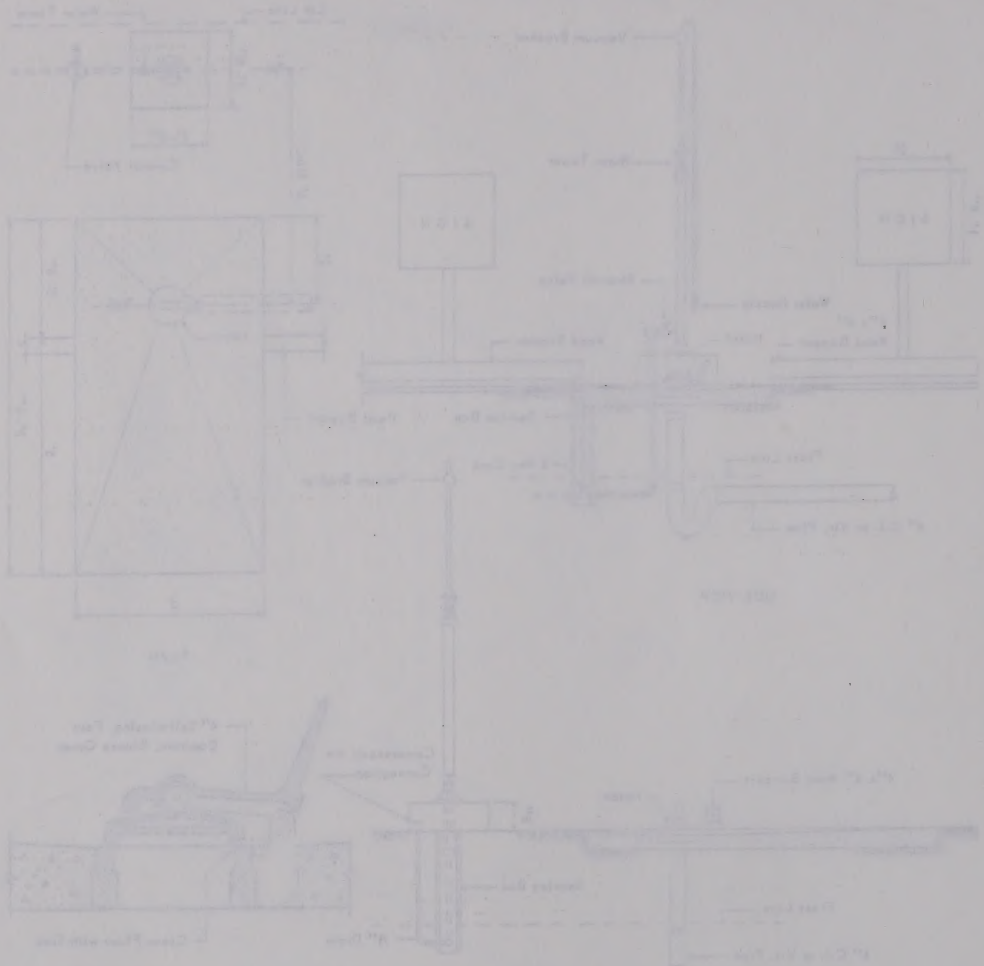
HUCKLEBERRY CAMPGROUND

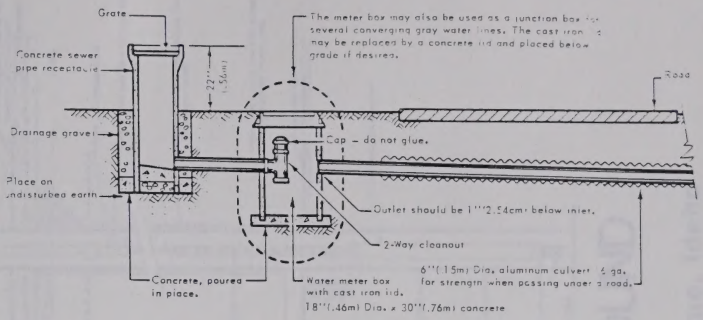
Emerald Empire Resource Area, Coeur d' Alene, Idaho



HUCKLEBERRY CAMPGROUND

Coeur d' Alene Resource Area, Coeur d' Alene, Idaho

GRAY WATER DISPOSAL

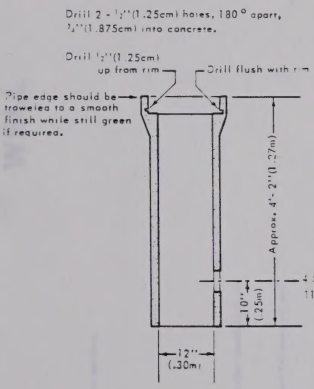

Grate
The meter box may also be used as a junction box for several converging gray water lines. The cast iron lid may be replaced by a concrete lid and placed below grade if desired.
Concrete sewer pipe receptacle
22" (.56m)
Road
Drainage gravel
Cap – do not glue.
Place on undisturbed earth
Outlet should be 1" (2.54cm) below inlet.
2-Way cleanout
6" (.15m) Dia. aluminum culvert 16 ga. for strength when passing under a road.
Concrete, poured in place.
Water meter box with cast iron lid. 18" (.46m) Dia. x 30" (.76m) concrete

SECTION 1

TRAP – A sewage line must be trapped according to the uniform plumbing code. If hooking into a sewer line, a trap similar to this one must be used. P-traps are not recommended because of their frequent clogging. If septic tanks are used in the system, this trap is not necessary as long as the septic tank outlet is Trapped.

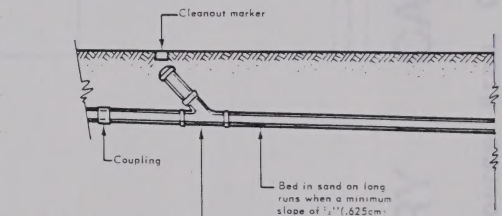
NOTE:

The gray water pipe may be sealed into the receptacle trap, septic tank, and manhole by using a cement mortar or asphalt cement.

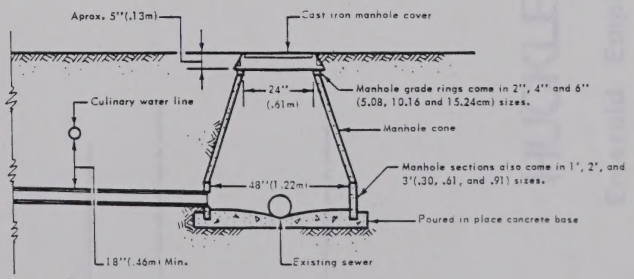

Drill 2 - ½" (1.25cm) holes, 180° apart, ¾" (1.875cm) into concrete.
Drill ½" (1.25cm) up from rim
Drill flush with rim
Pipe edge should be troweled to a smooth finish while still green if required.
Approx. 4'-2" (1.27m)
5 5/8" (11.773cm)
10" (.25m)
12" (.30m)

SECTION

DETAIL OF CONCRETE SEWER PIPE


Cleanout marker
Coupling
Bed in sand on long runs when a minimum slope of ¼" (.625cm) per foot is used.
Five cleanouts every 100'-0" (30.48m) or as specified in uniform plumbing code.

SECTION 2


Aprox. 5" (.13m)
Cast iron manhole cover
24" (.61m)
Manhole grade rings come in 2", 4" and 6" (5.08, 10.16 and 15.24cm) sizes.
Culinary water line
Manhole cone
Manhole sections also come in 1', 2', and 3' (.30, .61, and .91) sizes.
48" (1.22m)
Poured in place concrete base
18" (.46m) Min.
Existing sewer

SECTION 3

SEWER HOOKUP

Manholes are required at sharp bends or every 300' (91.44m). Check the Uniform Plumbing Code for current regulations.

Check with District Health Department if water line is closer to or below gray water line. Gray water line must have water tight joints for 10' (3.05m) on both sides of water line.

U.S. DEPARTMENT OF THE INTERIOR
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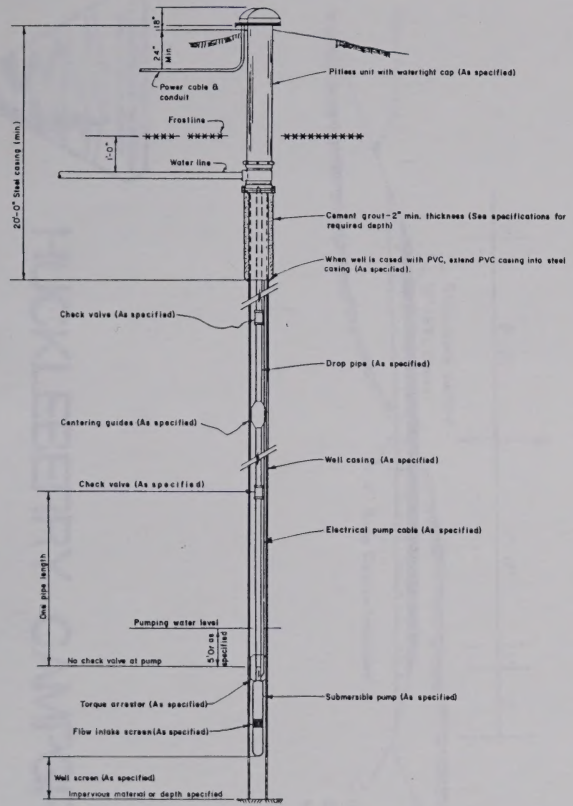
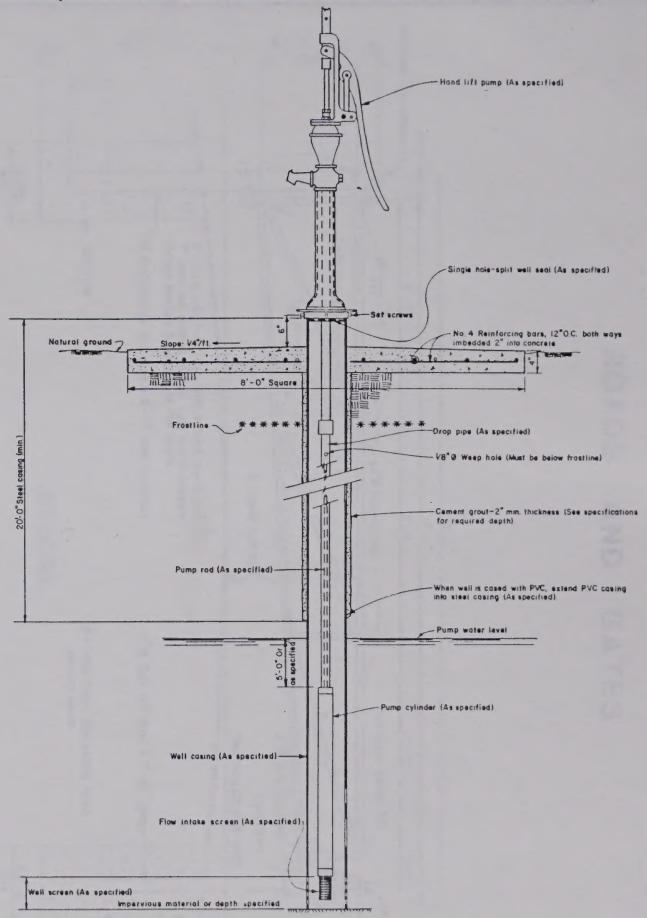
HUCKLEBERRY CAMPGROUND

Emerald Empire Resource Area, Coeur d' Alene, Idaho

WELL


Pitless unit with watertight cap (As specified)
Power cable & conduit
Frostline
Water line
20'-0" Steel casing (min.)
Cement grout-2" min. thickness (See specifications for required depth)
When well is cased with PVC, extend PVC casing into steel casing (As specified).
Check valve (As specified)
Drop pipe (As specified)
Centering guides (As specified)
Well casing (As specified)
Check valve (As specified)
Electrical pump cable (As specified)
One pipe length
Pumping water level
No check valve at pump
Torque arrestor (As specified)
Submersible pump (As specified)
Flow intake screen(As specified)
Well screen (As specified)
Impervious material or depth specified


Hand lift pump (As specified)
Single hole-split well seal (As specified)
Set screws
Natural ground
Slope: V4"/ft
No. 4 Reinforcing bars, 12" O.C. both ways imbedded 2" into concrete
8'-0" Square
Frostline
Drop pipe (As specified)
V8" Ø Weep hole (Must be below frostline)
20'-0" Steel casing (min.)
Cement grout-2" min. thickness (See specifications for required depth)
Pump rod (As specified)
When well is cased with PVC, extend PVC casing into steel casing (As specified)
Pump water level
5'-0" Or as specified
Pump cylinder (As specified)
Well casing (As specified)
Flow intake screen (As specified)
Well screen (As specified)
Impervious material or depth specified

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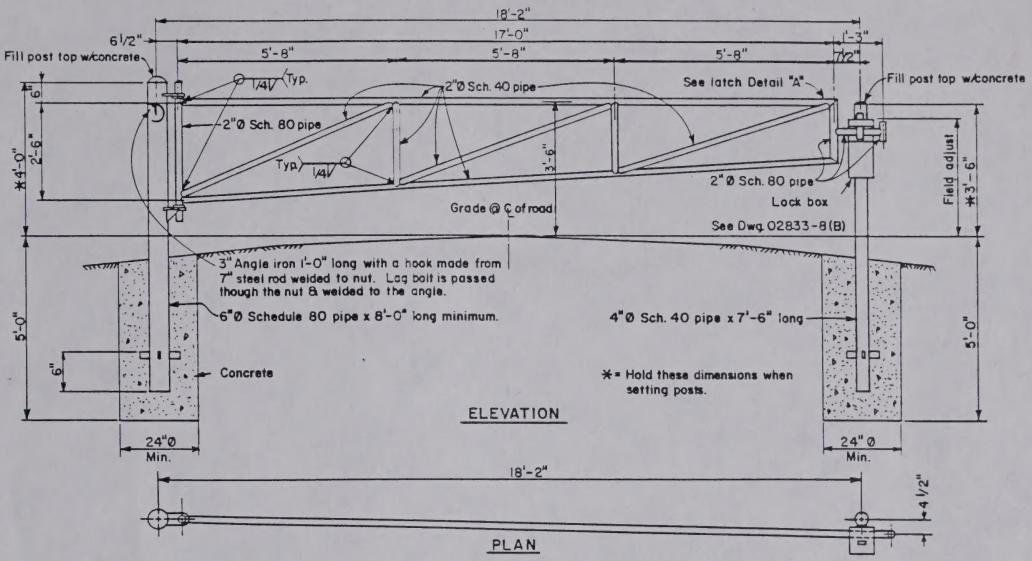
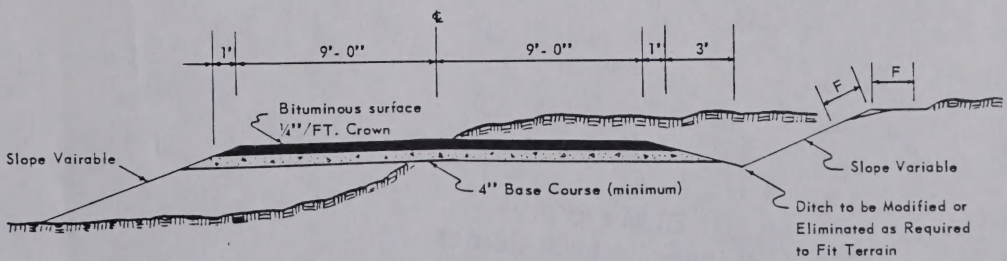
HUCKLEBERRY CAMPGROUND

Emerald Empire Resource Area, Coeur d' Alene, Idaho

ROADS AND GATES





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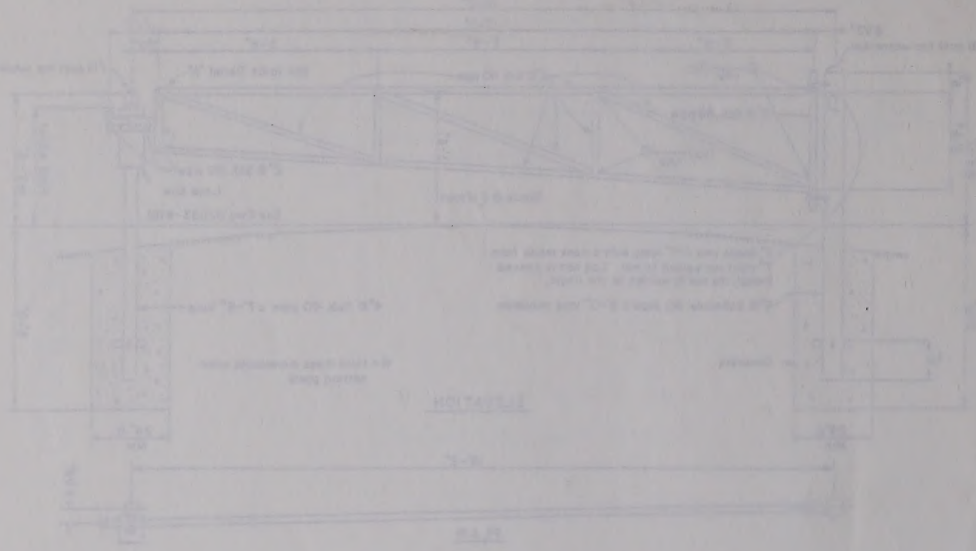

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